THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 15

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

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Ex parte HARRY N. WINDLE

_____

Appeal No. 1999-1763
Application No. 08/834,931

_____

ON BRIEF

_____

Before CALVERT, FRANKFORT and BAHR, Administrative Patent Judges

FRANKFORT, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final

rejection of claims 1 through 8[1]. Claims 9 through 21 have been allowed. We affirm-in-part.

[1] Claims 1 through 4 have been amended subsequent to final rejection.

BACKGROUND

Appellant's invention relates to a high efficiency process and apparatus for vermiculture (i.e., worm culture) and vermicomposting utilizing thin beds. Vermicomposting operates under the principle that worms consume, digest and absorb largely organic matter, passing the remainder back to the soil. Hence, worms aid in the breaking down of organic matter within the material they consume. This promotes bacterial and other microbial decomposition, as well as ventilates the soil. This invention provides, as one of its objectives, a system whereby a biomass is created which minimizes worm stratification and promotes worm movement into undigested material. To this end, a thin biomass layer is loaded onto a conveying device which slowly moves the thin layer from a loading point (5) which is formed of newly introduced undigested biomass (6), to an unloading point (7) at which digested biomass (8) is withdrawn. A worm mass, i.e., the collective worms which are active in the biomass on the conveyor, consume the limited food supply in the thin layer of biomass on the conveyor bed surface (4), all the time

moving “upstream” in the direction of the undigested biomass. To provide further impetus for the worms’ migration towards the undigested biomass, a variety of incentives may be used such as moving air (e.g., by means of a fan), electrical currents, radiant heat and vibration. Inasmuch as by nature, the worms will avoid the free surface (10), these incentives act to hasten the worms’ movement deeper into the biomass. A copy of representative claim 1 appears below:

1. A high efficiency vermiculture apparatus which reduces stratification of worms in the biomass being composed and increases worm density and efficacy, the apparatus comprising:

a thin layer biomass;

a worm mass within said thin layer biomass;

an input end and an output end;

a conveyor means for conveying the thin layer biomass from the input end to the output end: such that the thin layer biomass may be digested by the worm mass as the thin layer biomass is conveyed from the input end to the output end.

The sole prior art reference relied upon by the examiner in rejecting the appealed claims is:

Price (GB)	2 151 949 A	July 31, 1985

As stated in the final rejection (Paper No. 5), claim 1 stands rejected under 35 U.S.C. § 102(b) as being anticipated by Price; claims 2 through 8 stand rejected under 35 U.S.C. § 103(a) as being obvious over Price; and claims 1 through 8 stand rejected under 35 U.S.C. § 101 as being non-statutory.

Rather than reiterate the conflicting viewpoints advanced by the examiner and the appellant regarding the above-noted rejections, we make reference to the final rejection (Paper No. 5, mailed April 13, 1998) and the examiner's answer (Paper No. 10, mailed September 29, 1998) for the examiner's complete reasoning in support of the rejection, and to the appellant's brief (Paper No. 9, filed July 10, 1998) and reply brief (Paper No. 11, filed October 26, 1998) for the arguments thereagainst.

OPINION

In reaching our decision in this appeal, we have given careful consideration to appellant's specification and claims, to the applied prior art references and to the respective positions articulated by appellant and the examiner. As a consequence of our review, we have made the determinations which follow.

Looking at pages 3 and 4 of the brief, we note that appellant has indicated that independent claim 1 is separately patentable; that claims 2 and 3 stand together; that dependent claim 4 is separately patentable; that claims 5 and 6 stand together; and that claims 7 and 8 stand together.

THE ANTICIPATION ISSUE

Turning first to the examiner's rejection of claim 1 under

35 U.S.C. § 102(b) as being anticipated by Price, we observe that appellant has argued (brief, pages 4 and 5) that Price's biomass of worm-containing medium cannot be considered a "thin layer biomass" as is set forth in claim 1 and carefully

defined in appellant's specification (page 5, line 3+; page 6, line 8+), since Price's biomass does not enable proper migration and composting by the worms inasmuch as it does not have the proper thickness, uniformity, and a contiguous absence of breaks. The examiner has taken the position that by virtue of the 2 mm spacing between Price's hopper front edge and the conveyor belt, the resulting layer of worms and medium is considered to be

"thin" for all practical purposes. Furthermore, the examiner argues that appellant's claim 1 does not assign an objective value to the thickness or provide any additional criteria for gauging it.

We agree with the examiner. Unpatented claims should be given the broadest reasonable interpretation consistent with the specification and limitations of the specification should not be read into the claims where no express statement of limitation is included in the claims. See In re Prater, 415 F.2d 1393, 1404-05 162 USPQ 541, 550-51 (CCPA 1969). In the

case of appealed claim 1, appellant broadly claims “a thin layer biomass” in conjunction with an apparatus which “reduces stratification of worms in the biomass”. The claim further requires that “the thin layer biomass be digested by the worm mass as the thin layer biomass is conveyed from the input end to the output end”. Although we agree with appellant that Price’s ultimate objective is to separate worms from organic matter whereas appellant’s objective is to maintain a uniform distribution of the worms throughout the thin layer of biomass, the law of anticipation does not require that the reference teach what the applicant is claiming, but only that the claims on appeal “read on” something disclosed in the

reference. See Kalman v. Kimberly-Clark Corp., 713 F.2d 760, 772, 218 USPQ 781, 789 (Fed. Cir. 1983), cert. denied, 465 U.S. 1026 (1984). It is well settled that if a prior art device inherently possesses the capability of functioning in the manner claimed, anticipation exists regardless of whether there was a recognition that it could be used to perform the claimed function. See In re Schreiber, 128 F.3d 1473, 1477, 44 USPQ2d 1429, 1431-32 (Fed. Cir. 1997). Price's device shows the claimed features of a thin layer of biomass and a worm mass within the thin layer of biomass (see Abstract, first sentence and page 2, lines 43-47); an input end (adjacent hopper 14) and output end (near 22); and a conveyor means (12) which carries the thin layer of biomass. By virtue of the presence of the worms in the biomass, some digestion of the biomass by the worms, albeit in a limited amount, inherently will occur in the device of Price during the movement of the biomass from the input end of the conveyor to the output end thereof. Moreover, as result of such activity by the worms, there will also be, to some extent, a reduction in the stratification of the worms in the thin layer of

biomass. This is all that is required to meet the broad limitations of appellant's apparatus claim 1 and hence, we conclude that claim 1 is anticipated by Price.

THE OBVIOUSNESS ISSUE

In rejecting claims 2 and 3, the examiner has taken the position that it would have been obvious to increase the thickness of Price's biomass layer from 2 mm to between two and eight inches so that one could process a larger quantity of worms and their encompassing medium without having to change the speed of the conveyor. The examiner further explains that the larger gap (i.e., between the front edge of the hopper and the conveyor belt) would permit a thicker deposition of material on the belt.

Like appellant (brief, pages 5 and 6), we agree that there is no teaching, suggestion or motivation found in the Price reference to widen the gap between the front edge of the hopper and the conveyor belt in order to achieve the claimed biomass layer thicknesses recited in appellant's claims 2 and

3. A rejection based on 35 U.S.C. § 103 must rest on a factual basis, with the facts being interpreted without hindsight reconstruction of the invention from the prior art. In making this evaluation, the examiner has the initial duty of supplying the factual basis for the rejection he advances. He may not, because he doubts that the invention is patentable, resort to speculation, unfounded assumptions or hindsight reconstruction to supply deficiencies in the factual basis. See In re Warner, 379 F.2d 1011, 1017, 154 USPQ 173, 178 (CCPA 1967), cert. denied, 389 U.S. 1057 (1968). In the instant application, to make such a modification would be contrary to Price's objective, i.e., quickly and efficiently separating the worms from the thin (2mm) layer of biomass. Clearly, the problem of thorough and efficient composting of the biomass by complete digestion of the biomass by the worms is not contemplated by the Price reference. The examiner has impermissibly drawn from appellant's own teaching and fallen victim to what our reviewing Court has called "the insidious effect of a hindsight syndrome wherein that which only the inventor has taught is used against its teacher." W.L. Gore &

Associates, Inc. v. Garlock, Inc., 721 F.2d 1540, 1553, 220 USPQ 303, 313 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984). Since we have determined that the examiner's conclusion of obviousness is based on hindsight reconstruction using appellant's own disclosure as a blueprint to arrive at the claimed subject matter, it follows that we will not sustain the examiner's rejection of appealed claims 2 and 3 over Price.

Claims 4 through 8 on appeal all ultimately depend from claim 2. Accordingly, since the teachings and suggestions found in Price would not have made the subject matter as a whole of claim 2 obvious to one of ordinary skill in the art at the time of appellant's invention, it follows that dependent claims 4 through 8 would likewise have been unobvious over Price. Therefore, we also refuse to sustain the examiner's rejection of dependent claims 4 through 8 under 35 U.S.C. § 103(a).

THE ISSUE OF STATUTORY SUBJECT MATTER

In rejecting claims 1 through 8, the examiner has taken the position that the recitation of the worms in the claims is non-statutory subject matter under 35 U.S.C. § 101 and that the rejection of the aforesaid claims is proper inasmuch as the recited worms are not substantially altered or changed. The examiner finds support for his position in Ex parte Grayson, 51 USPQ 413 (Bd. App. 1941), which is drawn to a shrimp with the head and digestive tract removed. Like appellant, we find the examiner's position untenable inasmuch as the overall subject matter of appellant's invention, as set forth in claims 1 through 8 on appeal, is an apparatus for vermiculture. Appellant's apparatus falls within one of the four classes of inventions (i.e., process, machine, manufacture and composition of matter), as defined by 35 U.S.C. § 101, namely, a machine. The courts have determined that subject matter which falls outside the four statutory categories are abstract ideas, laws of nature and natural phenomena and that subject matter which is not a practical application or use of an idea, a law of nature or a natural phenomenon is also not patentable. See Rubber-Tip Pencil Co.

v. Howard, 87 U.S. (20 Wall.) 498, 507 (1874) which states "[a]n idea of itself is not patentable, but a new device by which it may be made practically useful is." Furthermore, O'Reilly v. Morse, 56 U.S. (15 How.) at 114-19 sets forth that claims that recite nothing but the physical characteristics of a form of energy such as a voltage or magnetic field strength define energy or magnetism per se, and as such are nonstatutory physical phenomena. However, a claim directed to a practical application of a natural phenomenon such as energy or magnetism is statutory.

In the present application, appellant is claiming a machine which utilizes, in a practical and useful fashion, a naturally occurring phenomenon, i.e., worms. Unlike in Grayson, which addresses solely a living organism, appellant is claiming an apparatus that utilizes attributes of a living organism in a useful manner in the apparatus to achieve a desired end result, and as such, in our opinion appellant's claims are directed to statutory subject matter. In determining the eligibility of appellant's claimed subject matter for patent protection the examiner may not dissect the claim into individual limitations and treat those limitations separately, instead the examiner must consider each claim as a whole and determine eligibility under 35 U.S.C. § 101 on that basis. The mere fact that appellant's claim 1 may include some form of non-statutory material does not automatically mean that appellant's apparatus violates the strictures of 35 U.S.C. § 101. See, for example, In re Abele, 684 F.2d 902, 214 USPQ 682 (CCPA 1982); Diamond v. Diehr, 450 U.S. 175, 209 USPQ 1 (1981); and In re Noll, 545 F.2d 141, 191 USPQ 721 (CCPA 1976), wherein claims were held to be directed to statutory subject matter even though they included a

limitation that, if considered alone, would have been viewed as non-statutory subject matter.

The decision of the examiner to reject claims 1 through 8 under 35 U.S.C. § 101 is reversed.

CONCLUSION

The rejection of claim 1 under 35 U.S.C. § 102(b) as being anticipated by Price is affirmed.

The rejection of claims 2 through 8 under 35 U.S.C. § 103(a) as being obvious over Price is reversed.

The rejection of claims 1 through 8 under 35 U.S.C. § 101 as being drawn to non-statutory subject matter is reversed.

No period For taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a).

AFFIRMED-IN-PART

IAN A. CALVERT Administrative Patent Judge	)	
CHARLES E. FRANKFORT Administrative Patent Judge	)	BOARD OF PATENT APPEALS AND INTERFERENCES
JENNIFER D. BAHR Administrative Patent Judge	)	

CEF/dal

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